Texas Commission on Environmental Quality

Permit For
Municipal Solid Waste (MSW) Management Facility
Issued under provisions of Texas
Health and Safety Code
Chapter 361

MSW Permit No.:	42D
Name of Site Operator/Permittee:	Waste Management of Texas, Inc.
Operator:	Waste Management of Texas, Inc.
Property Owner:	Waste Management of Texas, Inc.
Facility Name:	Waste Management Skyline Landfill
Facility Address:	1201 North Central Street, Ferris, TX 75125-2101
Classification of Site:	Type I Municipal Solid Waste Management Facility

The permittee is authorized to store, process, and dispose of wastes in accordance with the limitations, requirements, and other conditions set forth herein. This permit is granted subject to the rules and orders of the Commission and laws of the State of Texas and it replaces any previously issued permit. Nothing in this permit exempts the permittee from compliance with other applicable rules and regulations of the Texas Commission on Environmental Quality. This permit will be valid until canceled, amended, or revoked by the Commission.

Approved, *Issued* and *Effective* in accordance with Title 30 Texas Administrative Code, Chapter 330.

Issued Date: June 9, 2015

For the Commission

Table of Contents

I. Size and Location of Facility

A. The Waste Management Skyline Landfill (Skyline Landfill) is located in Ellis and Dallas Counties, Texas, on the west side of U.S. Highway 75 in the City of Ferris, approximately 0.3 miles west of IH 45 and one mile south of the Malloy Bridge Road and IH-45 Business South/N Central Street intersection. The facility contains 661.74 acres.

B. The legal description is contained in Part I of the application which is incorporated by reference in Attachment A of this permit.

C. Coordinates and Elevation of Site Permanent Benchmark:

Latitude:	32° 32' 48.0" N
Longitude:	96° 39' 57.4" W
Elevation:	438.58 feet above mean sea level (msl)

II. Facilities and Operations Authorized

A. Days and Hours of Operation

The waste acceptance hours for the receipt and disposal of waste at this facility shall be 24 hours per day, Monday through Friday, and until 3:00 p.m. on Saturday. The operating hours, during which transportation of materials (other than waste) on and off site and operation of heavy equipment may occur 24 hours per day, 7 days per week.

The operator shall post the actual waste acceptance hours and operating hours on the site sign.

B. Wastes Authorized at This Facility

The permittee is authorized to dispose of municipal solid waste resulting from, or incidental to municipal, community, commercial, institutional, recreational, and industrial activities, including household waste, yard waste, and commercial waste; Class 2 and Class 3 nonhazardous industrial waste; waste that is classified as Class 1 nonhazardous industrial waste only because of asbestos content; construction-demolition waste; some special wastes including regulated asbestos-containing materials (RACM) and liquid wastes (consisting of sludges, grease trap waste, and grit trap waste from municipal sources; Class 2 liquid nonhazardous industrial waste; petroleum contaminated soils; and liquid waste from drilling activities); petroleum contaminated soil that is classified as Class 1 nonhazardous industrial waste only due to its total petroleum hydrocarbon concentration will be accepted for processing; and other waste as approved by the TCEQ Executive Director. Wastes from oil, gas, and geothermal activities subject to regulations by the Railroad Commission of Texas, if they exhibit the characteristics of Class 1 industrial waste, may be accepted only if they can be successfully treated in accordance with Appendix IVD of the Site Operating Plan.

C. Wastes Prohibited at This Facility

The permittee shall comply with the waste disposal restrictions set forth in 30 TAC §330.15(e). The permittee shall not accept Class 1 nonhazardous industrial solid waste (except waste that is classified as Class 1 only because of asbestos content or petroleum contaminated soil that is classified as Class 1 nonhazardous industrial waste only due to its total petroleum hydrocarbon concentration for processing), or any other waste which is prohibited or not identified in Section II.B of this permit.

D. Waste Acceptance Rate

Solid waste may be accepted for processing and disposal at this facility at the initial rate of approximately 1,040,000 tons per year (approximately 3,333 tons per day) and increasing over time to a maximum acceptance rate of approximately 1,600,331 tons per year (approximately 5,129 tons per day). The actual yearly waste disposal acceptance rate is a rolling quantity based on the sum of the previous four quarters of waste acceptance. The estimated waste acceptance rate is not a limiting parameter of this permit except that the annual acceptance rate is subject to provisions in Section 2.7 of the Site Operating Plan.

E. Waste Volume Available for Disposal

The total waste disposal capacity of the landfill (including waste and daily cover) is 80.6 million cubic yards.

F. Facilities Authorized

The permittee is authorized to operate a Type I municipal solid waste landfill consisting of a total permit boundary of 661.74 acres and a waste disposal footprint of 356.9 acres.

All waste disposal activities authorized by this permit are to be confined to the Type I landfill which shall include a site entrance with security fencing and gates, a gatehouse, scales, a paved entrance road to the site, all-weather access roads, soil stockpiles, a mud-grate facility to remove mud from vehicle tires, the solid waste landfill unit, a leachate collection system, a leachate storage facility, a bioremediation treatment pad, a citizen's convenience center, a large item storage area, a reusable materials storage area, a liquid stabilization area, a groundwater monitoring system, landfill gas monitoring and collection systems, a fuel storage area, and office and maintenance buildings. Structures for surface drainage and stormwater run-on and runoff control include a perimeter drainage system to convey stormwater runoff around the site, berms, ditches, detention ponds and associated drainage structures.

A Type IX Beneficial Landfill Gas Recovery Facility (Type IX Registration No. 48018) is included within the facility permit boundary.

G. Changes, Additions, or Expansions

Any proposed facility changes must be authorized in accordance with the rules in 30 TAC Chapters 305 and 330.

III. Facility Design, Construction, and Operation

A. Facility design, construction, and operation and maintenance must comply with the provisions of this permit; Commission Rules, including but not limited to 30 TAC Chapter 330; and Parts I through IV of the permit application incorporated by reference in Attachment A of this permit; amendments, corrections, and modifications incorporated by reference in Attachment B. The facility construction and operation shall be managed in a manner that protects human health and the environment.

B. The entire waste management facility shall be designed, constructed, operated, and maintained to prevent the release and migration of any waste, contaminant, or pollutant beyond the point of compliance as defined in 30 TAC §330.3 and to prevent inundation or discharge from the areas surrounding the facility components. Each receiving, storage, processing, and disposal area shall have a containment system that will collect spills and incidental precipitation in such a manner as to:

1. Preclude the release of any contaminated runoff, spills, or precipitation;

2. Prevent washout of any waste by a 100-year frequency flood; and

3. Prevent run-on into the disposal areas from off-site areas.

C. The site shall be designed and operated so as not to cause a violation of:

1. The requirements of §26.121 of the Texas Water Code;

2. Any requirements of the Federal Clean Water Act, including, but not limited to, the National Pollutant Discharge Elimination System (NPDES) requirements of §402, as amended, and/or the Texas Pollutant Discharge Elimination System (TPDES), as amended;

3. The requirements under §404 of the Federal Clean Water Act, as amended; and

4. Any requirement of an area wide or statewide water quality management plan that has been approved under §208 or §319 of the Federal Clean Water Act, as amended.

D. Management of Contaminated Water, Leachate, and Gas Condensate

1. All contaminated water shall be handled, stored, treated, disposed of, and managed in accordance with 30 TAC §§ 330.65(c), 330.177, 330.207, 330.305(g), 330.333, and the permit application incorporated by reference in Attachment A of this permit.

2. Contaminated surface water and groundwater shall not be placed in or on the landfill.

E. Liner System

1. A liner system pursuant to 30 TAC §330.331 must be installed in all cells. The liner system shall be constructed in accordance with the rules and the specifications in Section 1.6 of Attachment D to Part III of the application, and must consist of the following components (listed in order from top to bottom): 24 inches protective cover soil; 0.2-inch thick leachate collection layer (single-sided geocomposite on floor, consisting of a nonwoven geotextile bonded to the top of an HDPE drainage net; double-sided geocomposite on sidewalls, consisting of nonwoven geotextiles bonded to the top and bottom of an HDPE drainage net); 60 mil HDPE geomembrane (smooth geomembrane on floor, textured geomembrane on sidewalls); and 24 inches recompacted soil with coefficient of permeability of 1×10^{-7} centimeters per second (cm/s) or less.

2. The elevation of deepest excavation at the landfill disposal area is 377 feet above msl, and is located at the leachate collection sumps in Cells 11-18 of the landfill.

3. The elevations of the bottom of the excavations within the waste disposal areas shall be as shown in Drawing D1.3 in Part III, Site Development Plan of the application.

F. Final Cover System

1. A final cover system designed to meet the requirements of 30 TAC Chapter §330 Subchapter K will be placed over the waste in each cell or phase of the landfill. Two final cover system designs are proposed in Section 1.7 of Attachment D in Part III of the application. One is described as a Subtitle D final cover system, and the other as an alternative final cover system.

   Subtitle D Final Cover System (components listed in order from top to bottom):

   - 36 inches of erosion layer soil with the top 6 inches capable of sustaining native plant growth

   - 8 ounces/square yard cushion layer geotextile on top slopes only

- 0.2-inch thick drainage layer on side slopes only (double-sided geocomposite consisting of nonwoven geotextiles bonded to the top and bottom of an HDPE drainage net)
- 40 mil smooth LLDPE or HDPE geomembrane on top slopes only
- 60 mil textured LLDPE or HDPE geomembrane on side slopes only
- 18 inches infiltration layer compacted soil with coefficient of permeability of $1x10^{-5}$ cm/s or less.

Alternative Final Cover System (components listed in order from top to bottom):

- 36 inches of erosion layer soil with the top 6 inches capable of sustaining native plant growth
- 0.2-inch thick drainage layer on all slopes (double-sided geocomposite consisting of nonwoven geotextiles bonded to the top and bottom of an HDPE drainage net)
- 18 inches infiltration layer compacted soil with coefficient of permeability of $1x10^{-7}$ cm/s or less.

Drawing D3.9 in Attachment D3 of Part III of the application shows the areas where the Subtitle D final cover system will be used. All other areas will be covered using the alternative final cover system. The final cover system shall be installed as described in Part III, Attachment D8 of the application.

2. The maximum elevation of the final cover shall not exceed 688 feet above msl.

3. Best management practices for temporary erosion and sedimentation control shall remain in place until sufficient vegetative cover has been established to control and mitigate erosion on areas having final cover. Vegetative cover will be monitored and maintained throughout the post-closure care period in accordance with the Post Closure Care Plan.

G. Waste Placement

1. The lowest elevation of waste placement will be approximately 382 feet above msl.

2. The maximum final elevation of waste placement will be 683.5 feet above msl.

H. Landfill Gas Management System

1. A landfill gas management system to monitor and control methane gas pursuant to 30 TAC Chapter 330, Subchapter I shall be installed and operated at the landfill. The landfill gas monitoring system shall consist of a perimeter network of landfill gas monitoring probes and landfill gas monitoring equipment for facility structures. The landfill gas monitoring probes and landfill gas control system shall be located as described in Part III, Attachment G of the application. The landfill gas monitoring and control systems shall be designed, installed, and operated as described in part III, Attachment G of the application and consistent with applicable rules. At a minimum, landfill gas monitoring shall be conducted on a quarterly basis.

2. The landfill gas management system shall ensure that the concentration of methane gas generated by the facility does not exceed 5% by volume in monitoring points, probes, subsurface soils, or other matrices at the facility boundary defined by the legal description in the permit and does not exceed 1.25% by volume in facility structures (excluding gas control or recovery system components). If methane gas levels exceeding the limits specified herein are detected, the owner or operator shall follow and implement the notification and mitigation provision described under 30 TAC §330.371(c) to ensure continuous protection of human health and the environment.

I. Groundwater Monitoring System

1. The groundwater monitoring system shall be installed and shall consist of a sufficient numbers of monitoring wells to monitor the quality of groundwater in the uppermost aquifer in accordance with 30 TAC §330.403. The system shall be designed, constructed, and operated in accordance with part III, Attachment F of the application and consistent with the applicable rules.

2. Monitoring wells shall be sampled in accordance with 30 TAC §330.407. The frequency of groundwater sampling and reporting of data collected for each sampling event shall be in accordance with 30 TAC §330.405 and Part III, Attachment F of the application.

J. Landfill Markers

Landfill markers shall be installed and maintained in accordance with 30 TAC §330.143 and as described within Part IV of the application.

K. Storm water runoff from the active portion(s) of the landfill shall be managed in accordance with 30 TAC §§330.63(c), 330.301 through 330.307, and 330.165(a) through (c), and as described in Part III, Attachment C of the application.

L. The permittee shall comply with 30 TAC §330.59(f) (3) regarding employment of a licensed solid waste facility supervisor. The permittee shall ensure that landfill personnel are familiar with safety procedures, contingency plans, the requirements of the Commission's rules and this permit, commensurate with their levels and positions of responsibility as described in Part IV of the permit application. All facility employees and other persons involved in facility operations shall obtain the appropriate level of training or certification as required by applicable regulations.

M. The facility shall be properly supervised to assure the attraction of birds does not cause a significant hazard to low-flying aircraft and that appropriate control procedures will be followed. Any increase in bird activity that might be hazardous to safe aircraft operations will require prompt mitigation actions.

IV. Financial Assurance

A. Authorization to operate the facility is contingent upon compliance with provisions contained within this permit and maintenance of financial assurance in accordance with 30 TAC Chapter 330 Subchapter L and 30 TAC Chapter 37.

B. Within 60 days after the date of issuance of this permit, the permittee shall provide financial assurance instrument(s) for demonstration of closure in an amount not less than $11,399,386.70 (2014 dollars).

C. Within 60 days after the date of issuance of this permit, the permittee shall provide financial assurance instrument(s) for demonstration of post-closure care of the landfill in an amount not less than $8,811,489.60 (2014 dollars).

D. The permittee shall annually adjust the closure and/or post-closure care cost estimates for inflation within 60 days prior to the anniversary date of the establishment of the financial assurance instrument pursuant to 30 TAC §§330.503 and 330.507, as applicable.

E. If the facility's closure and/or post-closure care plan is modified the permittee shall provide new cost estimates in current dollars in accordance with 30 TAC §§330.503, 330.463(b)(3)(D), and 330.507, as applicable. The amount of the financial assurance mechanism shall be adjusted within 45 days after the modification is approved. Adjustments to the cost estimates and/or the financial assurance instrument to comply with any financial assurance regulation that is adopted by the TCEQ subsequent to the issuance of this permit shall be initiated as a modification within 30 days after the effective date of the new regulation.

V. Facility Closure

Closure of the facility shall commence:

A. Upon the landfill being filled to its permitted waste disposal capacity or upon the landfill reaching its permitted maximum waste elevation;

B. Upon direction by the Executive Director of the TCEQ for failure to comply with the terms and conditions of this permit or violation of State or Federal regulations. The Executive Director is authorized to issue emergency orders to the permittee in accordance with §§5.501 and 5.512 of the Water Code regarding this matter after considering whether an emergency requiring immediate action to protect the public health and safety exists;

C. Upon abandonment of the site by the permittee;

D. Upon direction by the Executive Director of the TCEQ for failure to secure and maintain an adequate bond or other acceptable financial assurance instrument as required; or

E. Upon the permittee's notification to the TCEQ that the landfill will cease to accept waste and no longer operate.

VI. Facility Post-Closure Care

A. Upon completion and closure of the landfill, post-closure care shall be conducted in accordance with 30 TAC §330.463 and as described in Part III, Attachment I of the application for a period of 30 years following written acceptance of the certification of final closure by the Executive Director of the TCEQ.

B. The vegetation on the final cover must be monitored and maintained throughout the post-closure care period.

C. Following completion of the post-closure care period, the owner or operator shall submit to the Executive Director for review and approval a documented certification prepared by an independent professional engineer licensed in the State of Texas in accordance with 30 TAC §330.465.

D. Upon written acceptance of the certification of completion of post closure care by the Executive Director of the TCEQ, the permittee shall submit to the Executive Director a request for voluntary revocation of this permit.

VII. Standard Permit Conditions

A. This permit is based on and the permittee shall follow the permit application submittals dated April 12, 2012 and revisions dated July 31, 2014, August 21, 2014, January 8, 2015, February 18, 2015, and March 24, 2015. These application submittals are hereby approved subject to the terms of this permit, the rules and regulations, and any orders of the TCEQ. These application materials are incorporated into this permit by reference in Attachment A as if fully set out herein. Any and all revisions to these elements shall become conditions of this permit upon the date of approval by the Commission. The permittee shall maintain the application and all supporting documentation at the facility and make them available for inspection by TCEQ personnel. The contents of Part III of Attachment A of this permit shall be known as the “Approved Site Development Plan” in accordance with 30 TAC §330.63. The contents of Part IV

of Attachment A of this permit shall be known as the "Approved Site Operating Plan" in accordance with 30 TAC §330.65 and 30 TAC Chapter 330, Subchapters D and E.

B. Attachment B, consisting of amendments, modifications, and corrections to this permit, is hereby made a part of this permit.

C. The permittee shall comply with all conditions of this permit. Failure to comply with any permit condition may constitute a violation of the permit, the rules of the Commission, and the Texas Solid Waste Disposal Act, and is grounds for an enforcement action, revocation, or suspension.

D. A pre-construction conference shall be held pursuant to 30 TAC §330.73(c) prior to beginning physical construction of the facility to ensure that all aspects of this permit, construction activities, and inspections are met. Additional pre-construction conferences may be held prior to the opening of the facility.

E. A pre-opening inspection shall be held pursuant to 30 TAC §330.73(e). Per 30 TAC §330.73(f) the facility shall not accept solid waste in the expansion area until the Executive Director has confirmed in writing that all applicable submissions required by the permit and applicable rules have been received and found to be acceptable and that construction is in compliance with the permit and the approved site development plan. If the Executive Director has not provided a written or verbal response within 14 days of completion of the pre-opening inspection, the facility shall be considered approved for acceptance of waste.

F. The permittee shall monitor sediment accumulation in ditches and culverts on a quarterly basis, and remove sedimentation to re-establish the design flow grades on an annual basis or more frequently if necessary to maintain design flow. The roads within the facility shall be designed so as to minimize the tracking of mud onto the public access road.

G. In accordance with 30 TAC §330.19(a), the permittee shall record in the deed records of Ellis and Dallas Counties, a metes and bounds description of all portions within the permit boundary on which disposal of solid waste has and/or will take place. A certified copy of the recorded document(s) shall be provided to the Executive Director in accordance with 30 TAC §330.19(b).

H. Daily cover of the waste fill areas shall be performed with well-compacted clean earthen material that has not been in contact with garbage, rubbish, or other solid waste, or with an alternate daily cover which has been approved in accordance with 30 TAC §§330.165(d) and 305.70(k). Intermediate cover, run-on, and run-off controls shall not be constructed from soil that has been scraped up from prior daily cover or which contains waste.

I. During construction and operation of the facility, measures shall be taken to control runoff, erosion, and sedimentation from disturbed areas. Erosion and sedimentation control measures shall be inspected and maintained at least monthly and after each storm event that meets or exceeds the design storm event.

Erosion and sedimentation controls shall remain functional until disturbed areas are stabilized with established permanent revegetation. The permittee shall maintain the on-site access road and speed bumps/mud control devices in such a manner as to minimize the buildup of mud on the access road and to maintain a safe road surface.

J. Erosion stability measures shall be maintained on top dome surfaces and external embankment side slopes during all phases of landfill operation, closure, and post-closure care in accordance with 30 TAC §330.305(d).

K. In compliance with the requirements of 30 TAC §330.145, the permittee shall consult with the local District Office of the Texas Department of Transportation or other authority responsible for road maintenance, as applicable, to determine standards and frequencies for litter and mud cleanup on state, county, or city maintained roads serving the site.

L. The permittee shall retain the right of entry onto the site until the end of the post-closure care period as required by 30 TAC §330.67(b).

M. Inspection and entry onto the site by authorized personnel shall be allowed during the site operating life and until the end of the post-closure care period as required by §361.032 of the Texas Health and Safety Code.

N. The provisions of this permit are severable. If any permit provision or the application of any permit provision to any circumstance is held invalid, the remainder of this permit shall not be affected.

O. Regardless of the specific design contained in the application or adopted by reference in Attachments A and B of this permit, the permittee shall be required to meet all performance standards required by the permit, the Texas Administrative Code, and local, state, and federal laws or ordinances.

P. The permittee shall comply with the requirements of the air permit exemption in 30 TAC §106.534, if applicable, and the applicable requirements of 30 TAC Chapters 106 and 116 and 30 TAC Chapter 330, Subchapter U.

Q. All discharge of storm water will be in accordance with the U.S. Environmental Protection Agency NPDES requirements and/or the State of Texas TPDES requirements, as applicable.

VIII. Incorporated Regulatory Requirements

A. The permittee shall comply with all applicable federal, state, and local regulations and shall obtain any and all other required permits prior to the beginning of any on-site improvements or construction approved by this permit.

B. To the extent applicable, the requirements of 30 TAC Chapters 37, 281, 305, and 330 are adopted by reference and are hereby made provisions and conditions of this permit.

IX. Special Provisions

None.

Attachment A

Parts I through IV of the permit application.

Attachment B

Amendments, corrections, and modifications issued for MSW Permit No. 42D.